

**Remarks**

Claims 1-20 are pending in the application.

The Information Disclosure Statement filed on 06 November 2007 has been placed in the file but has not been considered, the Examiner stating that such Information Disclosure Statement fails to comply with 37 CFR 1.97(c).

Claims 20 is objected to for an informality.

Claims 1-5 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Combs et al. (U.S. Patent No. 6,751,417B1, hereinafter "Combs").

Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Combs.

Each of the various rejections and objections are overcome by amendments that are made to the specification, drawing, and/or claims, as well as, or in the alternative, by various arguments that are presented.

Entry of this Amendment is proper under 37 CFR 1.116 since the amendment: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; (c) satisfies a requirement of form asserted in the previous Office Action; (d) does not present any additional claims without canceling a corresponding number of finally rejected claims; or (e) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of the amendment is thus respectfully requested.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known

prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewritten to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

#### **The Information Disclosure Statement**

The Information Disclosure Statement filed on 06 November 2007 has been placed in the file but has not been considered, the Examiner stating that such Information Disclosure Statement fails to comply with 37 CFR 1.97(c), for lacking the statement specified in 37 CFR 1.97(e) and fee set forth in 37 CFR 1.17(p).

The Applicant hereby attests that the statement specified in 37 CFR 1.97(e) and fee set forth in 37 CFR 1.17(p) were inadvertently omitted when the IDS of 06 November was filed. The referenced IDS should have stated per 37 CFR 1.97(e) "that each item of the information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement," and the proper fee under 37 CFR 1.17 should have been included. A corrected Information Disclosure Statement including the preceding items is respectfully submitted herewith.

The Applicant respectfully requests the Examiner consider 37 CFR 1.97(f), which states “if a *bona fide* attempt is made to comply with §1.98, but part of the required content is inadvertently omitted, additional time may be given to enable full compliance,” and to please deem the Information Disclosure Statement timely as of the date it was originally submitted (06 November, 2007).

**Claim Objections**

Claim 20 is objected to, the Examiner stating that the recitation “said active optical upstream link” lacks antecedent basis. Claim 20 has been amended to now recite “said active optical upstream path.”

The Applicant respectfully requests the objection be withdrawn.

**Rejection Under 35 U.S.C. 102**

**Claims 1-5 and 16-20**

Claims 1-5 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Combs. The rejection is respectfully traversed.

The Applicant respectfully maintains that Combs does not teach or suggest the claimed “transmitting services to said customer premises using an end-to-end passive optical downstream path,” as recited in independent claim 1. The Applicant respectfully reiterates that Combs only teaches a single path active network, where all traffic between Head-End 102 and End-Users 112 must pass through active components.

The Office Action asserts that Combs teaches transmitting downstream services through an entirely passive path. The Applicant respectfully disagrees. With respect to Combs Figure 1, the Examiner’s attention is directed to the fact that all downstream traffic must pass through mini-fiber node (mFN) 108, for which a functional block diagram thereof is provided in Combs Figure 5. Per Combs Figure 5, all downstream traffic must enter the mFN through lightwave interface device 202 and be routed through coupler 208. Before arriving at coupler 208, a portion of the downstream traffic is modulated by modulator 204, which is clearly an active device and can thereby add gain to the downstream signal. Aside from the modulator 204 itself being able to add gain to

the downstream signal, since the signal output from modulator 204 is supplied to coupler 208, coupler 208 is also able to add power to downstream signals being passing through it.

Furthermore, Coupler 208 receives a signal from loop-back device 212, which Combs explicitly states are forwarded “to the coupler 208 to be combined with the signals received from the head-end” (col. 9, lines 24-26, emphasis added). Combining additional signals with “signals received from the head-end” (i.e., downstream signals) clearly adds power to the downstream signals, thus making the path they are propagating on not “a passive optical downstream path.”

Thus, Combs does not disclose each and every element of the Applicant’s independent claim 1, failing to teach or suggest at least the limitation of “transmitting services to said customer premises using an end-to-end passive optical downstream path.” Accordingly, the Applicant respectfully submits claim 1 is allowable under 35 U.S.C. 102. Independent claims 16 and 18 recite similar limitations to claim 1, and are thus patentable for at least the same reasons presented above with respect to independent claim 1. Since dependent claims 2-5, 17, and 19-20 depend from the respective independent claims and include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Combs under 35 U.S.C. 102(e).

Accordingly, claims 1-5 and 16-20 are patentable under 35 U.S.C. 102(e) over Combs. Therefore, the rejection should be withdrawn.

### Rejection Under 35 U.S.C. 103(a)

#### Claims 6-15

Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Combs. The rejection is respectfully traversed.

For at least the reasons discussed above in response to the Examiner’s 35 U.S.C. 102(e) rejection of claims 1, 16 and 18, Combs fails to teach or suggest Applicant’s invention as a whole. Specifically, Combs does not teach the “passive optical path” of independent claim 8, because as stated above, Combs only teaches a single path active network, where all traffic between Head-End 102 and End-Users 112 must pass through active components, including Mini-Fiber Node (mFN) 108.

As mentioned, a portion of the downstream signals received by mFN 108 must be modulated by modulator 204, which is an active device. Without modulator 204, baseband signals entering mFN 108 would not be able to be modulated onto a passband, and thus could not be utilized by end-users 112 (of Figure 1).

As also mentioned, mFN 108 includes loop-back device 212, which Combs discloses as forwarding signals “to the coupler 208 to be combined with the signals received from the head-end” (col. 9, lines 24-26, emphasis added). Combs teaches that the purpose of loopback-device 212 is to perform Media Access Control (MAC). Specifically, Combs states

“If local MAC is implemented, local access signals may be out-of-band and thus are not modulated together with other communication signals. For this case, the local access signals may be split out by an optional splitter...and forwarded to the loopback device 212. The loopback device 212 then performs any local access contention/control functions that may be desired and forwards loopback signals to coupler 208 to be combined with the signals received from the head end.” (See Combs, col. 9, lines 18-26, emphasis added)

Thus, without loopback device 212 and signals being “combined with the signals received from the head end,” there could be no MAC in Combs.

To summarize the above, not utilizing an active downstream path (i.e. utilizing a “passive optical downstream path”) in Combs would entail having baseband signals entering mFNs 108 not being modulated, and MAC not able to be performed. Therefore, in addition to Combs not even teaching a “passive optical path,” Combs does not suggest utilizing one either. Hence, independent claim 8 is not obvious in view of Combs, and is patentable under 35 U.S.C. 103(a).

Since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Combs under 35 U.S.C. 103.

Accordingly, dependent claims 6-7 and 9-15, which depend directly or indirectly from claims 1 or 8, are also patentable under 35 U.S.C. 103(a) over Combs. Therefore, the rejection should be withdrawn.

**Conclusion**

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

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